
DIMENSION IV:

Inclusion-centered Leadership Practices in Community Member Experiences Module

Providing Actionable Science Information Programs and Services for Adult Learners



THEME 3

Engaging Adults in Actionable Science Community Issues

A core goal for the *Serving Communities Framework* and this module is re-framing and broadening access to actionable science library programs and services for adult learners. How we frame science programs and services for adults matters.

Adults as Science Learners

How your library frames actionable science information, programs and services matters. Consider how your library is currently serving adults around science.

Adults want to be the origin of their own learning.

They want control over the what, who, how, why, when and where of learning. Actionable science information, programs and services allows for all of these elements to be present in the library, thereby providing underserved community members multiple points of entry.

Learning must be applicable to day-to-day priorities. Sometimes this means it must be connected to a challenge being faced by an individual or community. For those whose priority is actionable science information, the library program or service needs to be about reinforcing their own identity and recognition that the library “*has their back*” with wanting to help them and their families get access and connect to pertinent information that they can act upon and succeed. Particularly, with underserved community groups, barriers to engagement are related to feelings of belonging and identity within the library as well as with the topic.

Appropriate learning objectives.

It’s important to consider how deep someone is looking to go. Adults seeking actionable science information, programs, and services are not looking to establish a new area of expertise. Rather, they are looking for the information that provides a pathway for resolution and/or the identification of next steps to act on and that explicitly connects them to the what, who, how, why, when, and where of other community supports and services.

Active learning isn’t just for kids.

Sometimes adults do want to attend a talk. Particularly with actionable science information, often adults appreciate the ability to experience, reflect, and share. These types of programs and services can be found in loanable kits, citizen science, active discussions, and co-development of the experiences and information adults want and need. **Adults will commit to learning** when the objectives are applicable to day-to-day priorities.

Adults need to see that what they learn is applicable to their day-to-day activities and problems.

With your library’s priority of focusing on actionable science programs and services, you need to know who your audience is and what these adults are dealing with on a daily basis. If you and/or your staff do not know, you need to ask. This means two things:

1. have some understanding of the underserved community members wants and needs around actionable science information beforehand and,
2. have flexibility in presenting information.

Adults need direct, concrete experiences for applying what they learn to their lives and/or issues. Adults do not necessarily care that it is “science” they are learning, rather how that information benefits and helps them and their families.

Motivation regarding the chosen task. High interest in achieving outcomes that are personally rewarding and satisfying provides adults with the confidence that they have the necessary information to resolve the science-based issue impacting them and their families.

Active engagement in learning. Cognitive and affective engagement leads to action and behavioral change to address the actionable science issue as well as provides the confidence in the library in that adults know they can find the information and be supported in the use of it.

Self-efficacy as a learner. Adults’ gain self-belief in their ability to find and use the knowledge they seek.

Checklist for Inclusive-centered Adult Learner Library Services and Programs Focused On-demand Actionable Science Information

This **Checklist** is designed for library adult services, programming and community engagement directors, managers and staff to be used during service/program development and to measure the impact of program quality and engagement. The goal for your library is to create access to programs and services that provide culturally responsive, on-demand actionable science information.

Checklist

- There is no cultureless or neutral perspective** on learning or on science.

- Expressly draw on participants' cultural practices**, including everyday language and local cultural experiences.

- Community-based contacts that are familiar and safe** can be critical in engaging adults in science exploration.

- Collaboration, partnership, and diversity in power and “ownership”** may provide greater opportunity for nondominant groups to develop and use science-based information in their lives.

- Adults want to be the origin of their own learning** — that is, they want control over the what, who, how, why, when, and where of learning.

- Adults will commit to learning when **the objectives are realistic and important to their personal and professional needs**.

- Adults need to see that what we learn is applicable to our day-to-day activities and problems.** Proponents need to know who's in the room and what's on their plates. If they don't know, they need to ask — which means flexibility of information.

- Adults need to apply what they have learned.** Adults do not necessarily care that it is “science” they are learning, **rather how does that information benefit and help them and their families.**

- Motivation regarding the chosen task** — high interest in achieving outcomes that are personally rewarding or satisfying.

- Self-efficacy as a learner** — self-belief in their ability to find and use the knowledge they seek.



Preparing for Authentic, Meaningful, and Culturally Responsive Engagement

Why is engaging adult learners, particularly from underserved communities, in actionable science information programs and services important to them, to your library, and the community?

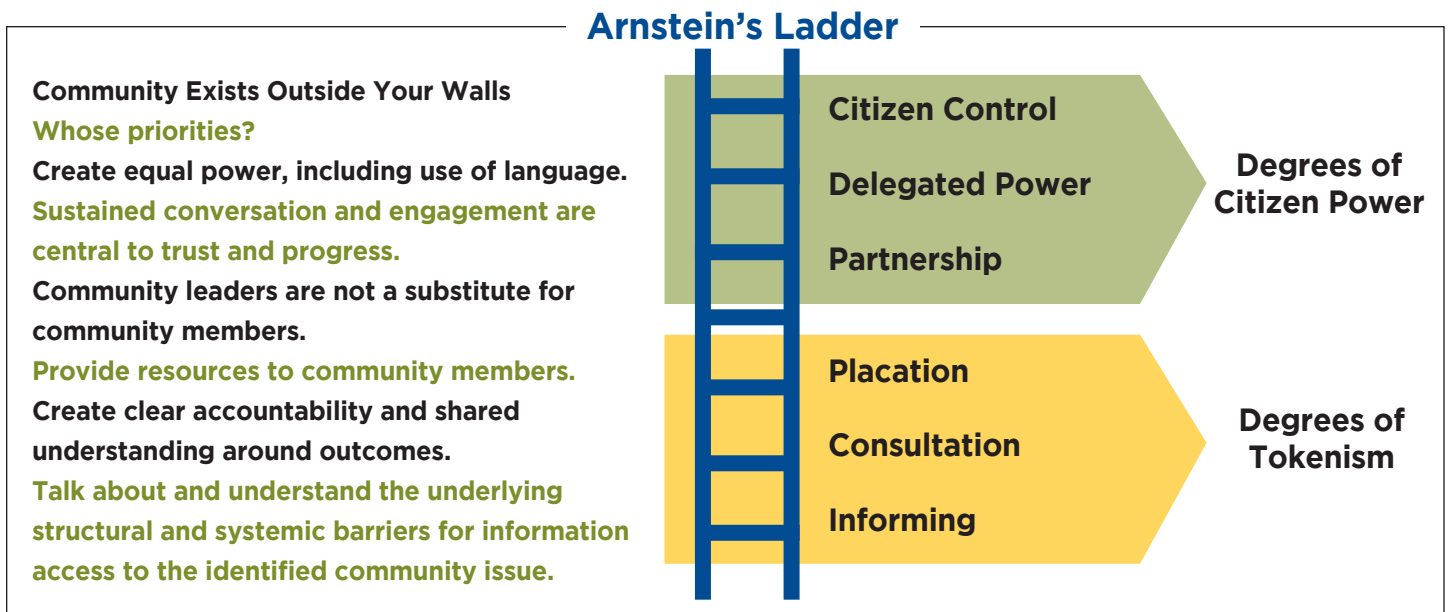
For Adult Learners The library is recognized as a safe place to gather, is culturally responsive, welcoming and has the types of high quality, accurate actionable science information they want and need.	For the Library Serves as a repository of information, able to create culturally responsive programs and services.	For the Community Community partners, government, and community members are able to rely on the library for the sustained capacity, distribution of and connection to other community supports and actionable science information.
Can learn and immediately act upon actionable science information, programs, and services that matter to them and their families.	Seen and used as an essential institution around actionable science issues that matter to the community.	Both the library and adults can affect change to improve conditions and access to invaluable information, programs, and services that are relevant and meaningful to them.

Now that you have a good picture of how adults learn, what are the elements for creating actionable science information that is culturally responsive and doable in your library? **Consider how you are currently engaging with adult learners from different cultural/ethnic and underserved communities around science.** If you cannot come up with any examples of actionable science, consider any library program or service that you currently engage in with underserved community members. Reflect on how you describe these efforts, the relationships, what is positive, challenging, and meaningful for both your library and adult learners?

“There is a critical difference between going through the empty ritual of participation and having the real power needed to affect the outcome of the process.” (Arnstein, 1969) “Partnerships allow citizens to negotiate, engage and trade with those in authority, whereas delegated power and citizen control sees a genuine transfer of power and decision-making.”

The diagram below is known as Arnstein’s Ladder (1969). Arnstein made the argument that:

This graphic is self-explanatory and a great way to begin to understand your personal motivations, as a library director or management, to community engagement with members currently not using the library.



This Arnstein’s Ladder diagram helps to visualize what authentic and meaningful engagement looks like and means — not only to you and your library but those you want to engage — and the inclusion-centered leadership levels you and your staff are currently operating at.

How do you and your library begin to climb the rungs of this ladder?

Looking at the ladder diagram, where does the level of engagement between your library and adult learners from underserved communities fall? As you consider co-developing programs and services with community members, your inclusion-centered leadership skills, practices, and attitudes should reflect on and address the following actions:

Community Exists Outside Your Walls. Take time to talk with people and engage in multicultural events, particularly the community groups currently not being served by your library. What are their perspectives, and what are the issues that are most affecting them and their families? How might the library help address access, information, and experiences to support the actionable science needs for them, their families and community.

Understand Whose Priorities You Are Addressing.

You need flexibility and patience in building these relationships and in building the shared language required for all participating groups to be able to listen and to be heard. Allow flexibility in the use of words like “science” as it will mean different things to different people. Ask which word they prefer and/or allow them to use the words of their choosing.

Actionable science community issues are like icebergs.

As you found in Activity 2, everyone can see the issue or top of the iceberg, but you may not know or understand the barriers and issues of access below the surface. This awareness only comes from talking and providing assurances that the library is committed.

Though partnering with a community group is a good first step, **it’s about building relationships with community members.** Individuals make up each cultural group. All ethnic and cultural groups are not monoliths. All of us have some shared cultural affinities, and we have unique and different lived experiences. It’s about shared goals and aspirations.

You may have an assumption that people will give of their time because of the belief that there may be something better for them and their communities. **You are working with adults who have limited time. Recognizing the value of their time, expertise, and wisdom will be critical. You are learning from them and they from you.** Consider ways to support people for the contributions they make in this work.

Clear accountability, being committed, and walk the walk. Creating pathways for authentic community engagement is time intensive and requires relationships built on trust. There are no short-cuts. There is pressure to achieve. But without spending time on building trust and creating relationships, people’s talents, insights, and resources may never come to light. Authentic community participation holds the key to authentic community change.

The ***Understanding and Aligning Actionable Science Programs and Services Worksheet*** on the next page is adapted from Portal to the Public, an initiative supported by the Institute for Learning Innovation. The Portal to the Public approach helps informal learning organizations connect public audiences with current science in their own communities through conversations with local scientists and engineers. The Portal to the Public framework has been implemented at over 50 organizations that form the Portal to the Public Network (PoPNet), a community of practitioners dedicated to sharing ideas and strategies for scientist-and-public engagement. Their website is <https://popnet.instituteforlearninginnovation.org/>.

“Nothing about us, without us.”

— Disability rights movement



WORKSHEET 3

Understanding and Aligning Actionable Science Programs and Services

(Worksheet adapted from the Portal to the Public Implementation Manual and Catalog of Professional Development Elements)

Objectives

- Be able to review and intentionally align current library programs and services and/or develop new ones with what both the library and adult learners want to achieve from the library program or service
- Understand that adult learners need and want actionable science information that they can learn and act upon immediately

What You Need

- A copy of your current library programs and services, particularly those on actionable science issues (e.g., public health, *Library of Things* kits that help with home energy efficiency, etc.)
- 1-2 meetings with your Adult and/or Reference

Librarians to discuss intentional alignment with community wants and needs

Time

2-4 hours

Discover

Integration of Actionable Science Information, Program and Service Goals

A challenge for you is not only identifying your library's goals but also recognizing and adjusting to the goals of underserved community members not using your library.

There are four goals, including: 1. **AFFECTIVE**; 2. **CONTENT**; 3. **BEHAVIOR**; and 4. **ENGAGEMENT**.

AFFECTIVE

Library Staff/Directors

- I want to:*
- Build trust and respect
 - Influence attitudes and values
 - Support identity development
 - Generate interest, excitement, motivation

Patrons/Community Members

- I want to:*
- Feel an increased sense of agency in my life and/or community
 - Feel inspired
 - Feel respected for who I am

CONTENT

The library wants to impact what adults know and understand about the who, what, where, when, how and why of actionable science information.

Library Staff/Directors

- I want to:*
- Increase knowledge or awareness about findings, applications of information, or processes

Patrons/Community Members

- I want to:*
- Increase awareness and knowledge
 - Increase my ability to access, find, and navigate relevant science-based content programs and services in our library and community

BEHAVIOR

The library wants to impact what adult learners do with the actionable science information, program, or service.

Library Staff/Directors

- I want to:*
- Support informed decision making (Individual, community, organizational, and/or societal)
 - Promote equitable, inclusive-centered advocacy

Patrons/Community Members

- I want to:*
- Access, use, and act on science information found at our library that helps inform or solve and issue I and/or my family is experiencing.

ENGAGEMENT

The library director and staff want to be impacted by adults to better serve and support their needs and wants. Adults want a safe, place to belong, be able to access content, and connect with and co-develop actionable science information, services, and programs that are meaningful to them and their family.

Library Staff/Directors

- I want to:*
- Listen to and learn from patrons
 - Demonstrate openness
 - Facilitate co-development of programs and services through shared, active experiences

Patrons/Community Members

- I want to:*
- Demonstrate openness
 - Become a part of shared, active experience
 - Feel more a part of community and contributing to addressing a community issue

Instructions

This worksheet guides you through the use of attributes of actionable science highlighted in the *Serving Communities Framework* found on **page 14**.

In **Part 1** of this worksheet, review the four types of goals, and consider which seem to align with your own personal or organizational motivations for working with adult learners around actionable science issues. Make note of some specific examples of the goals that you think influence your work.

Below is a completed worksheet example that a library director might describe the goals and objectives that addresses both library and adult learner wants and needs around an actionable science issue.

In **Part 2**, consider the goals that adults might have when they engage with library programs or services. Consider how these goals might or might not be aligned with your library programs or services, and what adjustments you might have to make to ensure you are appropriately meeting an adult participant’s goals for engaging. **Choose one goal, and complete one of the worksheets on pages 32-35.**

EXAMPLE OF COMPLETED WORKSHEET

Actionable Science Topic: Provide my library’s service area with access to culturally responsive actionable science information, programs, and services that help mitigate quality of life issues living in extreme temperature conditions.

Part 1			Part 2	
ACTIONABLE SCIENCE ACTION TYPE	LIBRARY GOAL TYPES	INCLUSION-CENTERED LEADERSHIP GOAL	COMMUNITY MEMBER EXPERIENCES GOAL TYPES	ACTIONABLE SCIENCE RESULTS TYPE
<p>Prevention/Mitigation Reduction or elimination of the likelihood or consequences of extreme heat.</p> <p>Preparedness Reduction of the extent or impact of extreme heat through planning, development of warning systems, and other measures.</p> <p>Response: Taking action in a few hours, days, or longer to resolve and/or have the steps and information to address extreme heat issues.</p>	<p>AFFECTIVE GOALS</p> <p>Example: The library impacts how community members experience the library and feel trust and respect.</p> <p>Library culture, staff, programs, and services convey inclusion and respect, and assure adult learners that they are being heard through programs and services.</p>	<p>Example: The staff respects and values my input from community members to identify the types of actionable science information and tools they want and need on health, signs of dehydration, ailments caused by heat/cold, such as dizziness and frostbite.</p>	<p>AFFECTIVE GOALS</p> <p>Example: We live in an apartment where heat and A/C are expensive. We need the library staff to provide information and services that give us the ability to find additional help on improving our health and living conditions during extreme temperature events.</p>	<p>Informed Example: Provides access to culturally responsive actionable science information in the library and affected neighborhoods on ways to reduce health effects of extreme heat or cold temperatures.</p> <p>Actionable Example: Provides training and programs with community members and partners on home improvements to reduce extreme heat or cold temperatures, steps should library users physically experience affects.</p> <p>Resilient Example: Library has a policy to become a heating/cooling center for the community when experiencing extreme heat or cold temperatures.</p>

AFFECTIVE GOALS

Actionable Science Topic:

Describe the actionable science issue.

Who and in what ways is it affecting community members?

Part 1			Part 2	
ACTIONABLE SCIENCE ACTION TYPE	LIBRARY GOAL TYPES	INCLUSION-CENTERED LEADERSHIP GOAL	COMMUNITY MEMBER EXPERIENCES GOAL TYPES	ACTIONABLE SCIENCE RESULTS TYPE
<p>Instructions: Choose one Type that the library will develop accessible inclusion-centered actionable science information, supports, and services for, co-developed with community members and partners.</p>	<p>Instructions: Create one Library Goal the library wants to intentionally improve that supports the wants of adult learners. In one sentence, describe what this will look like for the library and community members.</p>	<p>Instructions: Create one Inclusion-centered Leadership Goal you want to improve or enhance that helps your library achieve the identified intended goal.</p>	<p>Instructions: Create one Community Member Experience Goal Type. Describe in one sentence what this group wants and needs and how your library will intentionally strive to serve this group, particularly underserved groups not using the library.</p>	<p>Instructions: In one sentence, describe the intentional Result with your chosen actionable science action type, library director goals, as well as the community group/adult learner information, program, or service.</p>
<p>Prevention/Mitigation: Reduction or elimination of the likelihood or consequences of hazards to make them less severe and more cost-effective.</p>	<p>AFFECTIVE GOAL (see table on page 31 for examples) Your Response:</p>		<p>AFFECTIVE GOAL (see table on page 31 for examples) Your Response:</p>	<p>Informed</p>
<p>Preparedness: Reduction of the extent or impact of pressing actionable science community issues or problems, such as disasters, through planning, development of warning systems, and other measures.</p>	<p>AFFECTIVE GOAL (see table on page 31 for examples) Your Response:</p>		<p>AFFECTIVE GOAL (see table on page 31 for examples) Your Response:</p>	<p>Actionable</p>
<p>Response: Taking action in a few hours, days, or longer to resolve and/or have the steps and information to address actionable science issues, such as disasters.</p>	<p>AFFECTIVE GOAL (see table on page 31 for examples) Your Response:</p>		<p>AFFECTIVE GOAL (see table on page 31 for examples) Your Response:</p>	<p>Resilient</p>

CONTENT GOALS

Actionable Science Topic:

Describe the actionable science issue.

Who and in what ways is it affecting community members?

Part 1			Part 2	
ACTIONABLE SCIENCE ACTION TYPE	LIBRARY GOAL TYPES	INCLUSION-CENTERED LEADERSHIP GOAL	COMMUNITY MEMBER EXPERIENCES GOAL TYPES	ACTIONABLE SCIENCE RESULTS TYPE
<p>Instructions: Choose one Type that the library will develop accessible inclusion-centered actionable science information, supports, and services for, co-developed with community members and partners.</p>	<p>Instructions: Create one Library Goal the library wants to intentionally improve and supports the wants of adult learners. In one sentence, describe what this will look like for the library and community members.</p>	<p>Instructions: Create one Inclusion-centered Leadership Goal you want to improve or enhance that helps your library achieve the identified intended goal.</p>	<p>Instructions: Choose one Community Member Experiences Goal Type. Describe in one sentence what this group wants and needs, and how your library will intentionally strive to serve this group, particularly underserved groups not using the library.</p>	<p>Instructions: In one sentence, describe the intentional Result with your chosen actionable science action type, library director goals, as well as the community group/adult learner information, program, or service.</p>
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<p>Preparedness: Reduction of the extent or impact of pressing actionable science community issues or problems, such as disasters, through planning, development of warning systems, and other measures.</p>	<p>CONTENT GOAL (see table on page 31 for examples) Your Response:</p>		<p>CONTENT GOAL (see table on page 31 for examples) Your Response:</p>	<p>Actionable</p>
<p>Response: Taking action in a few hours, days, or longer to resolve and/or have the steps and information to address actionable science issues, such as disasters.</p>	<p>CONTENT GOAL (see table on page 31 for examples) Your Response:</p>		<p>CONTENT GOAL (see table on page 31 for examples) Your Response:</p>	<p>Resilient</p>

BEHAVIORAL GOALS

Actionable Science Topic:

Describe the actionable science issue.

Who and in what ways is it affecting community members?

Part 1			Part 2	
ACTIONABLE SCIENCE ACTION TYPE	LIBRARY GOAL TYPES	INCLUSION-CENTERED LEADERSHIP GOAL	COMMUNITY MEMBER EXPERIENCES GOAL TYPES	ACTIONABLE SCIENCE RESULTS TYPE
<p>Instructions: Choose one Type that the library will develop accessible inclusion-centered actionable science information, supports, and services for, co-developed with community members and partners.</p>	<p>Instructions: Create one Library Goal the library wants to intentionally improve and supports the wants of adult learners. In one sentence, describe what this will look like for the library and community members.</p>	<p>Instructions: Once the Library Goal Type is identified, choose one Inclusion-centered Leadership Goal you want to improve or enhance that helps your library achieve the identified intended goal.</p>	<p>Instructions: Choose one Community Member Experiences Goal Type. Describe in one sentence what this group wants and needs, and how your library will intentionally strive to serve this group, particularly underserved groups not using the library.</p>	<p>Instructions: In one sentence, describe the intentional Result with your chosen actionable science action type, library director goals, as well as the community group/adult learner information, program, or service.</p>
<p>Prevention/Mitigation: Reduction or elimination of the likelihood or consequences of hazards to make them less severe and more cost-effective.</p>	<p>BEHAVIORAL GOAL (see table on page 31 for examples): Your Response:</p>		<p>BEHAVIORAL GOAL (see table on page 31 for examples) Your Response:</p>	<p>Informed</p>
<p>Preparedness: Reduction of the extent or impact of pressing actionable science community issue or problems, such as disasters, through planning, development of warning systems and other measures.</p>	<p>BEHAVIORAL GOAL (see table on page 31 for examples) Your Response:</p>		<p>BEHAVIORAL GOAL (see table on page 31 for examples) Your Response:</p>	<p>Actionable</p>
<p>Response: Taking action in a few hours, days or longer to resolve and/or have the steps and information to address actionable science issue, such as disasters.</p>	<p>BEHAVIORAL GOAL (see table on page 31 for examples) Your Response:</p>		<p>BEHAVIORAL GOAL (see table on page 31 for examples) Your Response:</p>	<p>Resilient</p>

ENGAGEMENT GOALS

Actionable Science Topic:

Describe the actionable science issue.

Who and in what ways it is affecting community members?

Part 1			Part 2	
ACTIONABLE SCIENCE ACTION TYPE	LIBRARY GOAL TYPES	INCLUSION-CENTERED LEADERSHIP GOAL	COMMUNITY MEMBER EXPERIENCES GOAL TYPES	ACTIONABLE SCIENCE RESULTS TYPE
<p>Instructions: Choose one Type that the library will develop accessible inclusion-centered actionable science information, supports, and services for, co-developed with community members and partners.</p>	<p>Instructions: Create one Library Goal the library wants to intentionally improve and supports the wants of adult learners. In one sentence, describe what this will look like for the library and community members.</p>	<p>Instructions: Create one Inclusion-centered Leadership Goal you want to improve or enhance that helps your library achieve the identified intended goal.</p>	<p>Instructions: Choose one Community Member Experiences Goal type. Describe in one sentence what this group wants and needs, and how your library will intentionally strive to serve this group, particularly underserved groups not using the library.</p>	<p>Instructions: In one sentence, describe the intentional Result with your chosen actionable science action type, library director goals, as well as the community group/adult learner information, program, or service.</p>
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